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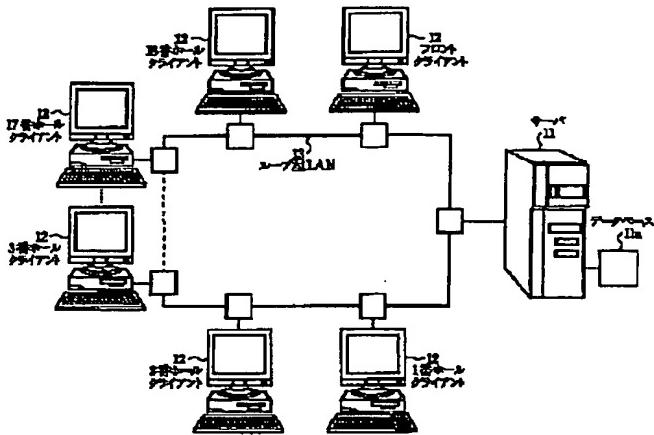
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APPLICANT : NEC CORP;

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**TITLE : GOLF DATA MANAGEMENT SYSTEM**



**ABSTRACT :** PROBLEM TO BE SOLVED: To improve service by facilitating and accelerating the gold score totalization work, and offering the high-level information to players.

**SOLUTION:** Players insert carried ID score cards into a client device 12 when the play of each hole is finished to input and print the scope data. The inputted data are collected into a data base 11a in a server device 11 via a loop type LAN 13. After the scores of all players are collected, the server device 11 outputs a competition tabulation list. An annual performance list is outputted as the individual information based on the accumulated data. The client devices 12 display the various information stored in the server device 11 and offer the character data and visual data such as the progress state of a competition and positions of pins to the players as appropriate.

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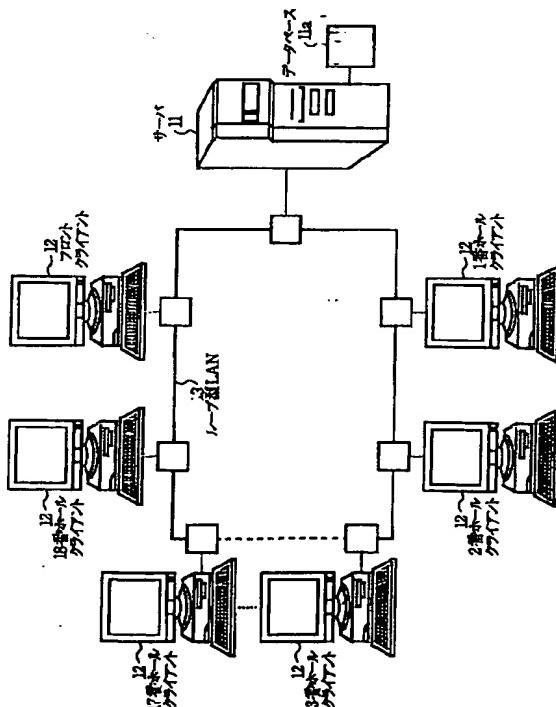
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(54)【発明の名称】 ゴルフデータ管理システム

(57)【要約】

【課題】 ゴルフスコア集計作業の容易化、迅速化および競技者への高度情報の提供によるサービスの向上をはかる。

【解決手段】 競技者は携帯するIDスコアカード31を各ホールの競技終了ごとにクライアント装置21に挿入し、スコアデータの入力および印字を行う。入力されたデータはループ型LAN13を介してサーバ装置11内データベース11aへ収集される。全競技者のスコア収集後、サーバ装置11はコンペ集計リストの出力をを行う。蓄積されたデータは個人情報として年間成績リスト等を出力する。クライアント装置12はサーバ装置11内に蓄積されている多種多様な情報を表示し、コンペの進行状況、ピンの位置等の文字データ、ビジュアルデータ等を競技者に随时提供する。



ディスプレイ領域21、操作領域22、IDスコアカード処理部23、マイク24、スピーカ25から構成されている。各ホールのティーグラウンド付近に配置されるクライアント装置は、防雨、防塵、落雷対策のなされたボックス内に設置され、これを地下に埋設された高速通信可能な光ケーブルを採用したループ型LANに接続する。

【0012】図3はIDスコアカード31を示す外観図である。図3(a)はIDスコアカード表面31aを示し、そこにはパーティ内の競技者名およびホール番号が記載されスコアが印字される。図3(b)はIDスコアカード裏面31bを示し、そこには個人ID情報(コンペへの登録番号などを含む。)が記載されている磁気ストライプ31cが貼付されている。

【0013】競技者は上記のIDスコアカードを携帯して競技し、ホールごとにスコアを入力してIDスコアカードにも印字し、競技終了後は持ち帰ることができる。

【0014】次に、上記のゴルフデータ管理システムの動作について説明する。

【0015】まず、競技スタート前に、サーバ装置11上のデータベースに参加メンバに関する個人情報(年齢、性別、登録番号等)および集計環境(組番号、ハンデホールの設定、どの登録番号の競技者を集計するか等)を設定しておき、データベースの情報が一意となる為のキー情報を個人ID情報としてIDスコアカード31の裏面の磁気ストライプ31cへ記録し、これを各競技者に配布し通常のスコアカードと同様に携帯してもらう。

【0016】各競技者は、1番始めのスタートホールでは、パーティ全員のIDスコアカード31をクライアント装置12に入力し、表面の同伴競技者名欄の印字を行い、競技を開始する。

【0017】1番目のホールの競技が終了し、2番目のホールの競技を開始する際にパーティ全員のIDスコアカード31をクライアント装置12のIDスコアカード処理部23に挿入し、操作領域22を利用して各競技者のスコアを入力する。全員のデータ入力の確認後、サーバ装置11へデータ送信を行い、データベース11a内へデータを蓄積し、全てのIDスコアカード表面31aへスコアを印字し、その後IDスコアカード31を排出する。

【0018】この処理を最終ホールまで繰り返し、最終ホールのデータが入力された時点でパーティ全員のスコアがサーバ装置11上のデータベースへ蓄積され、個人データが集計され合計欄が印字される。

【0019】各コンペにおける全部のパーティのデータが収集された時点で参加者全体の集計作業を実行する。ハンデ等を含めた成績集計作業が完了した時点で成績表を画面表示またはプリント出力し、幹事はスコア入力作業を行うことなく容易にコンペ集計リストを入手するこ

とができる。コンペ集計リストの例を図4に示す。

【0020】なお、個人データは履歴データとして蓄積保存することにより個人情報リストの様な年間成績表等のデータ提供サービスも可能となる個人情報リストの例を図5に示す。

【0021】また、IDスコアカードはキャッシュレスカードとしての機能を確保することができ、売店やレストラン等での精算承認の際に提示することにより売り上げデータをサーバ装置へ蓄積することも考えられる。

【0022】さらに、クライアント装置12はサーバ装置11に蓄積されている情報を随時検索し、ディスプレイ領域21に表示することができ、高速な通信を生かしたコンペの進行状況、他パーティの競技者のスコア状況、各ホールのスコア状況等のリアルタイムな情報提供が可能となり、各ホール毎の個別情報、日々変化する環境情報の提供も実現される。

【0023】さらにまた、ネットワーク機能を利用するにより、競技者の緊急の呼び出し・連絡をクライアント装置上のスピーカ25およびマイク24を通じて行うことも可能である。

【0024】

【発明の効果】以上、詳細に説明したように、本発明のゴルフデータ管理システムによれば、スコアデータの入力作業に専任のデータ入力作業者の必要がなくなり、コンペの幹事等のデータ入力/集計作業負荷が減り、競技終了後に直ちに成績集計表を提供できるといったサービスの向上が図れる。

【0025】また、サーバ上のデータベース集計機能を駆使して年齢別、男女別、ハンデ別の集計や個人情報リストの出力といった多彩な集計を行うことが可能となる。

【0026】さらに各ホール競技終了ごとに各競技者がスコアデータをエントリするので、コンペ情報として他ホールで行われている競技者の情報、現在の自分の順位、各ホールの平均スコア等の情報取得が可能となる。また、個人情報としては、現状までのスコア集計値、前回プレーを行った事があればその履歴のスコア値等も参照可能となる。

【0027】IDスコアカードは携帯端末に比べ軽量であり故障することもなく、紛失した際には次のホールでデータの復元が可能となり、競技終了後に一般的のスコアカードと同様に持ち帰ることも可能である。また、スコアの記入はクライアント装置が印字するため記入ミス/記入漏れが減り、各競技者が使い捨ての鉛筆等を用いる事もなくなる。

【0028】さらに、レストランや売店でのキャッシュレス支払いの際の承認カードとしての利用もできる。

【0029】情報通信の為のネットワークには光ケーブルを用いてループ型LANを採用するので、電波障害もなく無線に比べ安定した高品質/高速なる通信を確保で

きる。これにより、グラフィックデータ・音声データ等の通信も可能となり、ホールのレイアウト、ピンの位置、攻略ポイント等の表示、または緊急呼び出し等の文字表示や雷雨等の緊急通報等が実現される。

【図面の簡単な説明】

【図1】本発明の実施の一形態を示す構成図。

【図2】クライアント装置の外観を示す説明図。

【図3】IDスコアカードの例を示す外観図。

【図4】コンペ集計リストの例を示す説明図。

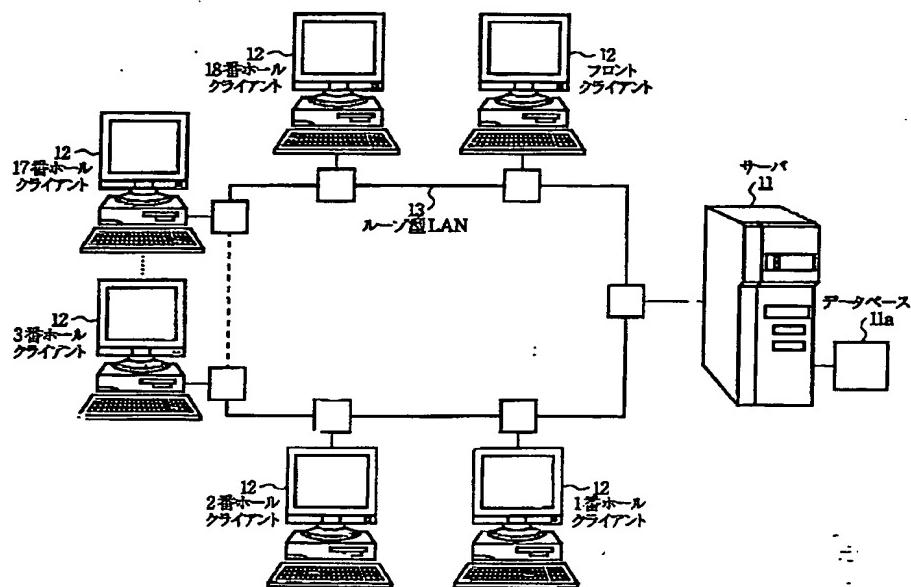
【図5】個人情報リストの例を示す説明図。

【符号の説明】

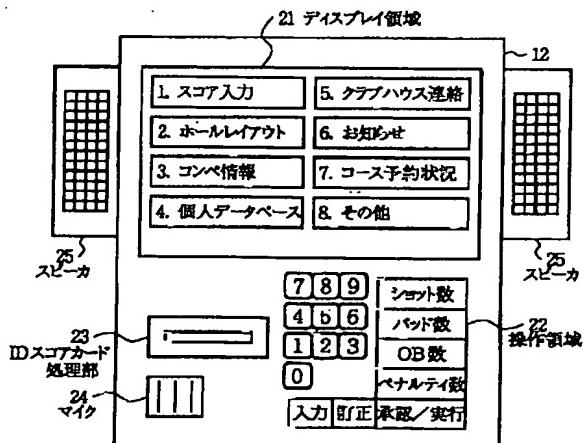
11 サーバ装置

- |      |             |
|------|-------------|
| 11 a | データベース      |
| 12   | クライアント装置    |
| 13   | ループ型LAN     |
| 21   | ディスプレイ領域    |
| 22   | 操作領域        |
| 23   | IDスコアカード処理部 |
| 24   | マイク         |
| 25   | スピーカ        |
| 31   | IDスコアカード    |
| 31 a | IDスコアカード表面  |
| 31 b | IDスコアカード裏面  |
| 31 c | 磁気ストライプ     |

【図1】



【図2】



【図3】

3la IDスコアカード表面

(a).	OUT	PAR	名前	名前	名前	名前	名前	
	1	2	3	4	5	6	7	8
	小計							
		IN	PAR	名前	名前	名前	名前	名前
		10	11	12	13	14	15	16
		17	18	小計				
		合計						

(b) 81b ITスコアカード裏面

平成〇年×月△日  
名前 A  
組番号 個人登録番号

OUT	REG BAK	PAR	HD	IN	REG BAK	PAR	HD
1				10			
2				11			
3				12			
4				13			
5				14			
6				15			
7				16			
8				17			
9				18			
合				合			

Oxカントリークラブ  
住所  
TEL

### 【図4】

【図5】

個人情報リスト(平成XX年度)											
名前 山田 太郎											
月日	天候	風	グレーン	ゴルフ コース 名称等	OUT ショット ハット	IN ショット ハット	ハンド スコア	順位 参加数	同伴者名 スコア		

ホールスコア状況											
月日	コース名	1番	2番	---	9番	OUT	10番	---	18番	IN	合計
AA											
・											
平均											
BB											
・											
平均											

年間ストロークデータ											
ラウンド数：回											
ホールインワン回数							バー回数				
アルバトロス回数							ボギー回数				
イーグル回数							ダブルボギー回数				
バーディ回数							トリプル以上回数				

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**Notes:**

1. Untranslatable words are replaced with asterisks (\*\*\*\*).
2. Texts in the figures are not translated and shown as it is.

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## CLAIMS

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**[Claim(s)]**

[Claim 1] Two or more client equipment which inputs a contestant's score for every hole, The server equipment which creates the competition total list which is equipped with the database which collects and stores the data inputted into said client equipment, displays each contestant's game results on at any time, and contains game results ranking at the time of the end of a game, ID scorecard with which the score inputted while identifying each contestant, carrying during a game and starting said client equipment is printed, The golf data management system characterized by having the loop type local area network which connects said two or more client equipment and said server equipment.

[Claim 2] In a golf data management system according to claim 1 Said ID scorecard is a golf data management system characterized by having the score field where the Member name and hole number of a party including the magnetic stripe field which records the information which identifies the contestant who possesses it, and said contestant are indicated, and a score is printed by at any time.

[Claim 3] It is the golf data management system characterized by saving the game data with which said server equipment was stored in said database in the golf data management system according to claim 1 or 2 as history data, and creating a comprehensive scorecard for every fixed period for every contestant.

[Claim 4] In a golf data management system Claim 1, 2, or given in three The golf data management system characterized by providing a means to send urgent connection information, including the layout information on each hole, the connection guidance to a clubhouse, the reservation status of Causse, a natural disaster, etc., in addition to the means which collects, stores and totals the data about each contestant's game results.

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## DETAILED DESCRIPTION

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**[Detailed Description of the Invention]****[0001]**

[Field of the Invention] Especially this invention relates to the client/server system which realizes easy score total processing in a golf course, advanced information service to a contestant, and improvement in service about a golf data management system.

**[0002]**

[Description of the Prior Art] In the conventional portable score system, equipment is possessed for every party or contestant in the end of the non-end of line, and a score is inputted for every end of a hole, it transmits to a center, and game results become clear immediately after the end of a game. However, the game situation of other parties was not able to be known during the game. Moreover, it was unsuitable for other various communication of information.

**[0003]**

[Problem to be solved by the invention] In the above score total systems, since a terminal unit is possessed, for example for every party, depending on a golf course, hundreds of sets of terminal units are needed. And since it is precision instruments, the frequency of failure also goes up by handling, and these terminal units cause degradation.

[0004] Furthermore, the electric wave obstacle to the neighborhood is also considered that low communication of error ratio is difficult for the data communications by radio, and it is easy to receive the influence by environment. And reservation of the circuit of hundreds of channels is also difficult, and since it is a method unsuitable for a lot of [ high-speed and ] data communications, various information services and advanced service are difficult.

**[0005]**

[Means for solving problem] Two or more client equipment into which the golf data management system of this

invention inputs a contestant's score for every hole. The server equipment which creates the competition total list which is equipped with the database which collects and stores the data inputted into said client equipment, displays each contestant's game results on at any time, and contains game results ranking at the time of the end of a game. It has the loop type local area network which connects said two or more client equipment and said server equipment with ID scorecard with which the score inputted while identifying each contestant, carrying during a game and starting said client equipment is printed, and is constituted.

[0006] Moreover, in the golf data management system of this invention, said ID scorecard has the score field where the Memba name and hole number of a party including the magnetic stripe field which records the information which identifies the contestant who possesses it, and said contestant are indicated, and a score is printed by at any time.

[0007] Moreover, in the golf data management system of this invention, said server equipment saves the game data stored in said database as history data, and creates a comprehensive scorecard for every fixed period for every contestant.

[0008] Furthermore, in addition to the means which collects, stores and totals the data about each contestant's game results, the golf data management system of this invention possesses a means to send urgent connection information, including the layout information on each hole, the connection guidance to a clubhouse, the reservation status of Causses, a natural disaster, etc.

[0009]

[Mode for carrying out the invention] It explains hereafter, referring to Drawings about this invention.

[0010] Drawing 1 is the composition figure showing one form of operation of this invention. [ the golf data management system by this invention ] in this figure Loop type LAN which connects the server equipment 11 which performs accumulation and distribution of data, two or more client equipment 12 installed in each hole and required parts (a front, a stand, a restaurant, etc.), and above server equipment 11 and client equipment 12 (local area network.) It is hereafter called LAN. It has 13 and is built as a network system. In addition, server equipment 11 possesses the database 11a which stores a contestant's score and other data.

[0011] Drawing 2 is the explanatory view showing the appearance of client equipment 12. In this figure, client equipment 12 consists of the display field 21, the operation field 22, an ID scorecard processing part 23, a microphone 24, and a speaker 25. The client equipment arranged near the teeing ground of each hole is installed in the box where protection from the rain, protection against dust, and the measure against a thunderbolt were made, and is connected to loop type LAN which adopted the optical cable which was underground laid underground in this, and which can be communicated high-speed.

[0012] Drawing 3 is the outline view showing the ID scorecard 31. Drawing 3 (a) shows ID scorecard surface 31a, the contestant name and hole number in a party are indicated there, and a score is printed. Drawing 3 (b) shows ID scorecard back 31b, and the magnetic stripe 31c individual ID information (the registration number to a competition etc. is included.) is indicated to be stuck there.

[0013] A contestant carries the above-mentioned ID scorecard and contests, and a score can be inputted for every hole, it can print also to ID scorecard, and after the end of a game can be brought home.

[0014] Next, operation of the above-mentioned golf data management system is explained.

[0015] first, the personal information (age --) concerning participating Memba to the database on server equipment 11 in before a game start Total environment, such as sex and a registration number ([ a group number and a handicap hole / up and ]) It sets up of which registration number a contestant is totaled, and records on the magnetic stripe 31c of the back of the ID scorecard 31 by making key information for the information on a database serving as a meaning into individual ID information, and I distribute this to each contestant and have it carried like the usual scorecard.

[0016] Each contestant inputs the ID scorecard 31 of all the members' parties into client equipment 12, prints the surface company contestant name column, and starts a game in the start hole begun No. 1.

[0017] The game of the 1st hole is completed, when starting the game of the 2nd hole, the ID scorecard 31 of all the members' parties is inserted in ID scorecard processing part 23 of client equipment 12, and each contestant's score is inputted using the operation field 22. Data transmission is performed to server equipment 11 after the check of all the members' data input, data is stored into Database 11a, a score is printed to all the ID scorecard surfaces 31a, and the ID scorecard 31 is discharged after that.

[0018] This processing is repeated to a final hole, when the data of a final hole is inputted, the score of all the members' parties is accumulated to the database on server equipment 11, personal data are totaled, and the sum total column is printed.

[0019] When the data of all the parties in each competition is collected, the whole participant's total work is done. When results total work including a handicap etc. is completed, a scorecard is screen-displayed or printed, and the manager can obtain a competition total list easily, without doing score input work. The example

of a competition total list is shown in drawing 4.

[0020] In addition, personal data show drawing 5 the example of the personal information list whose data offer service of an annual-results table like a personal information list etc. is also attained by carrying out accumulation preservation as history data.

[0021] Moreover, ID scorecard being able to secure the function as a cashless payment card, selling it by showing in the case of settlement-of-accounts recognition at a stand, a restaurant, etc., and storing data to server equipment is also considered.

[0022] Furthermore, client equipment 12 retrieves the information accumulated in server equipment 11 at any time. It can display on the display field 21, real time situation [ the advance situation of the competition which employed high-speed communication efficiently, the score situation of the contestant of other parties, the score situation of each hole, etc. ] information service becomes possible, and offer of the individual information for every hole and environment information which carries out an interdiurnal change is also realized.

[0023] Furthermore, it is also possible by using a network function to perform urgent call and connection of a contestant through the speaker 25 and microphone 24 on client equipment again.

[0024]

[Effect of the Invention] As mentioned above, [ according to the golf data management system of this invention ] as explained in detail The necessity for a full-time data input worker is lost to an input of score data, data input, total work loads, such as a manager of a competition, decrease, and improvement in service that a results summary sheet can be immediately offered after the end of a game can be aimed at.

[0025] Moreover, it becomes possible to perform the total an age exception, a man-and-woman exception, and according to handicap, and a variegated total called the output of a personal information list, making full use of the database total function on a server.

[0026] Furthermore, since each contestant enters score data for every end of a hole game, information acquisition of a contestant's information currently performed as competition information in other holes, its ranking, the average score of each hole, etc. is attained. [ present ] Moreover, as personal information, if the score total value to the present condition and the last play have been performed, the score value of the history etc. will be can be referred to.

[0027] Without ID scorecard being lightweight compared with a personal digital assistant, and breaking down, when it loses, it is also possible for restoration of data to be attained and to bring home like a common scorecard after the end of a game in the next hole. Moreover, entry of a score becomes, without the omission in an entry mistake / entry decreasing, and each contestant using a disposable pencil etc., since client equipment prints.

[0028] Furthermore, use as a recognition card in the case of the cashless payment payment in a restaurant or a stand can also be performed.

[0029] Since loop type LAN is adopted as the network for information and telecommunications using an optical cable, the high quality / high-speed communication which does not have an electric wave obstacle, either and was stabilized compared with radio is securable. Communication of graphic data, voice data, etc. is also attained by this, and the emergency dial of character representations, such as a display of the layout of a hole, the position of a pin, a capture point, etc. or an urgent call, thunderstorm, etc. is realized.

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Translation done.]